

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing Of Claims

1. (Currently amended) A composition comprising a protein in crystalline form, wherein ~~at least a portion of the protein has at least 90% identity with residues 51-778 of SEQ. ID No. 1~~ consists of SEQ. ID No. 3.

2-3. (Cancelled)

4. (Currently amended) A composition according to claim 1 wherein the protein crystal diffracts X-rays for a determination of structure coordinates to a resolution ~~greater~~ less than 3.0 Angstroms.

5. (Original) A composition according to claim 1 wherein the protein crystal has a crystal lattice in a $P2_1$ space group.

6. (Original) A composition according to claim 1 wherein the protein crystal has a crystal lattice having unit cell dimensions, +/- 5%, of $a=121.53\text{\AA}$ $b=124.11\text{\AA}$ and $c=144.42\text{\AA}$, $\alpha=\gamma=90^\circ$, $\beta=114.6^\circ$.

7. (Currently amended) A method for forming a crystal of a protein comprising:
forming a crystallization volume comprising[:] a precipitant solution and a protein
~~wherein at least a portion of the protein has at least 90% identity with residues 51-778 of SEQ. ID No. 1~~ that consists of SEQ. ID No. 3; and

storing the crystallization volume under conditions suitable for crystal formation of the protein.

8. (Currently amended) A method according to claim 7 wherein ~~at least a portion of the protein has at least 95% identity with residues 51-778 of SEQ. ID No. 1~~ is expressed from a nucleic acid molecule that comprises SEQ. ID No. 2.

9. (Cancelled)

10. (Currently amended) A method according to claim 7 wherein the protein crystal diffracts X-rays for a determination of structure coordinates to a resolution ~~greater~~ less than 3.0 Angstroms.

11. (Original) A method according to claim 7 wherein the protein crystal has a crystal lattice in a P21 space group.

12. (Original) A method according to claim 7 wherein the protein crystal has a crystal lattice having unit cell dimensions, +/- 5%, of $a=121.53\text{\AA}$ $b=124.11\text{\AA}$ and $c=144.42\text{\AA}$, $\alpha=\gamma=90^\circ$, $\beta=114.6^\circ$.

13. (Original) A method according to claim 7, the method further comprising diffracting the protein crystal to produce a diffraction pattern and solving the structure of the protein from the diffraction pattern.

14. (Cancelled)

15. (Currently amended) A composition according to claim ~~14~~ 16 where the protein is expressed from a nucleic acid molecule that comprises SEQ. ID No. 2.

16. (Currently amended) A composition comprising ~~an isolated~~ a protein consisting of SEQ. ID No. 3.

17. (Currently amended) A method of identifying an entity that associates with a protein, comprising:

taking structure coordinates from diffraction data obtained from a protein crystal formed according to the method of claim 7; ~~has at least 90% identity with SEQ. ID No. 3;~~ and performing rational drug design using a three dimensional structure that is based on the obtained structure coordinates.

18. (Currently amended) A method according to claim 17 wherein the protein from which the protein crystal is formed ~~has at least 95% identity with SEQ. ID No. 3;~~ is expressed from a nucleic acid molecule that comprises SEQ. ID No. 2.

19. (Original) A method according to claim 17 wherein the protein crystal has a crystal lattice having unit cell dimensions, +/- 5%, of $a=121.53\text{\AA}$ $b=124.11\text{\AA}$ and $c=144.42\text{\AA}$, $\alpha=\gamma=90^\circ$, $\beta=114.6^\circ$.

20. (Original) A method according to claim 17, the method further comprising selecting one or more entities based on the rational drug design and contacting the selected entities with the protein.

21. (Original) A method according to claim 17, the method further comprising measuring an activity of the protein when contacted with the one or more entities.

22-23. (Cancelled)